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FACTS ABOUT AIDS

COLUMBIA UNIVERSITY
WITHDRAWN

The Acquired Immune Deficiency Syndrome, or AIDS, was first reported in the United States in mid-1981. Since that time, the Public Health Service has received reports of more than 15,000 cases, about 52 percent of which have resulted in death. An estimated 500,000 to 1 million people have been infected by the virus that causes AIDS, but have no symptoms of illness.

AIDS is a public health problem that merits serious concern. It has been named the number one priority of the U.S. Public Health Service. Researchers in the Public Health Service and in many major medical institutions have been working for more than four years to study AIDS and develop treatments and preventive measures.

This fact sheet describes, in question-and-answer form, accurate information about AIDS, the risk of contracting AIDS, the actions individuals can take to reduce spreading AIDS, and current research and related activities under way in the Public Health Service.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service

FACTS ABOUT AIDS

What is AIDS?

AIDS is characterized by a defect in natural immunity against disease. People who have AIDS are vulnerable to serious illnesses which would not be a threat to anyone whose immune system was functioning normally. These illnesses are referred to as "opportunistic" infections or diseases.

What causes AIDS?

Investigators have discovered the virus that causes AIDS. Different groups of investigators have given different names to the virus, but they all appear to be the same virus. The virus is called human T-lymphotropic virus, type III (HTLV-III); lymphadenopathy-associated virus (LAV); or AIDS-related virus (ARV). Infection with this virus does not always lead to AIDS. Preliminary results of studies show that most infected persons remain in good health; others may develop illness varying in severity from mild to extremely serious.

How is AIDS transmitted?

AIDS is spread by sexual contact, needle sharing, or less commonly, through transfused blood or its components. The risk of infection with the virus is increased by having multiple sexual partners, either homosexual or heterosexual, and sharing of needles among those using illicit drugs. The occurrence of the syndrome in hemophilia patients and persons receiving transfusions provides evidence for transmission through blood. It may be transmitted from infected mother to infant before, during, or shortly after birth (probably through breast milk).

Who gets AIDS?

Ninety-five percent of the AIDS cases have occurred in the following groups of people:

- Sexually active homosexual and bisexual men, 73 percent;
- Present or past abusers of intravenous drugs, 17 percent;*
- Persons with hemophilia or other coagulation disorders, 1 percent;
- Heterosexual contacts of someone with AIDS or at risk for AIDS, 1 percent;
- Persons who have had transfusions with blood or blood products, 2 percent;
- Infants born to infected mothers, 1 percent.

Some 5% of patients do not fall into any of these groups, but researchers believe that transmission occurred in similar ways. Some patients died before complete histories could be taken. Infants and children who have developed AIDS may have been exposed to HTLV-III before or during birth, or shortly thereafter, or may have received transfusions.

What are its symptoms?

Most individuals infected with the AIDS virus have no symptoms and feel well. Some develop symptoms which may include tiredness, fever, loss of appetite and weight, diarrhea, night sweats, and swollen glands (lymph nodes)—usually in the neck, armpits, or groin. Anyone with these symptoms which continue for more than two weeks should see a doctor.

How long after infection with HTLV-III does a person develop AIDS?

The time between infection with the HTLV-III virus and the onset of symptoms (the incubation period) seems to range from about 6 months to 5 years and possibly longer. Not everyone exposed to the virus develops AIDS.

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* In addition, a certain number of homosexual or bisexual men are also IV drug abusers.

How is AIDS diagnosed?

There are no clear-cut symptoms that indicate the loss of immunity. The diagnosis of AIDS depends on the presence of opportunistic diseases. Certain tests which demonstrate damage to various parts of the immune system, such as specific types of white blood cells, support the diagnosis. The presence of opportunistic diseases plus a positive test for antibodies to HTLV-III can also make possible a diagnosis of AIDS.

What is the geographic distribution of reported AIDS cases?

Thirty-five percent of the cases in the U.S. are reported from New York State and about 23 percent from California. AIDS cases have been reported from all 50 states, the District of Columbia, Puerto Rico, and more than 35 other countries.

How contagious is AIDS?

Casual contact with AIDS patients or persons who might be at risk for the illness does *not* place others at risk for getting the illness. No cases have been found where the virus has been transmitted by casual household contact with AIDS patients or persons at higher risk for getting the illness. Infants with AIDS or HTLV-III infection have not transmitted the infection to family members living in the same household.

Although the AIDS virus has been found in saliva and tears, there have been no cases in which exposure to either was shown to result in transmission. Ambulance drivers, police, and firefighters who have assisted AIDS patients have not become ill. Nurses, doctors, and health care personnel have not developed AIDS from caring for AIDS patients. Two health care workers in the U.S. have developed antibodies to HTLV-III following needlestick injuries.

Health care and laboratory workers should follow standard safety procedures carefully when handling any blood and tissue samples from patients with potentially transmissible diseases, including AIDS. Special care should be taken to avoid needlestick injuries.

Is there a danger of contracting AIDS from donating blood?

No. Blood banks and other blood collection centers use sterile equipment and disposable needles. The need for blood is always acute, and people who are not at increased risk for getting AIDS are urged to continue to donate blood as they have in the past.

Is there a laboratory test for AIDS?

As with many other diseases, there is no single test for diagnosing AIDS. There is now a test for antibodies (substances produced in the blood to fight disease organisms) to the virus that causes AIDS. Presence of HTLV-III antibodies means that a person has been infected with that virus; it does not tell whether the person is still infected. The antibody test is used to screen donated blood and plasma and assist in preventing cases of AIDS resulting from blood transfusions or use of blood products, such as Factor VIII, needed by patients with hemophilia. The test is also available through private physicians, most State or local health departments and at other sites.

What are some of the diseases affecting AIDS patients?

About 82 percent of the AIDS patients studied have had one or both of two rare diseases: *Pneumocystis carinii* pneumonia (PCP), a parasitic infection of the lungs; and a type of cancer known as Kaposi's sarcoma (KS). KS usually occurs anywhere on the surface of the skin or in the mouth. In early stages, it may look like a bruise or blue-violet or brownish spot. The spot or spots persist, and may grow larger. KS may spread to, or appear in, other organs of the body. PCP has symptoms similar to any other form of severe pneumonia, especially cough, fever, and difficulty in breathing. Other opportunistic infections include unusually severe infections with yeast, cytomegalovirus, herpesvirus, and parasites such as *Toxoplasma* or *Cryptosporidia*. Milder infections with these organisms do not suggest immune deficiency.

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Is there a danger of a child's contracting AIDS from friends or schoolmates?

No. AIDS is difficult to catch, even among people at highest risk for the disease. The risk of transmitting AIDS from daily contact at work, school, or at home apparently is nonexistent. In virtually all cases, direct sexual contact or the sharing of IV drug needles has led to the illness.

How is AIDS treated?

Currently, there are no antiviral drugs available anywhere that have been proven to cure AIDS, although the search for such drugs is being pursued vigorously. Some drugs have been found that inhibit the AIDS virus, but these have not yet led to clinical improvement. Though no treatment has yet been successful in restoring the immune system of an AIDS patient, doctors have had some success in using drugs, radiation, and surgery to treat the various illnesses of AIDS patients. Therapeutic agents are needed for all stages of AIDS infections, to block action of the virus once infection has occurred, and to restore full function in patients whose immune systems have been damaged.

Eventually, a combination of therapies to combat the virus and restore the immune system may be the most effective treatment.

Pneumocystis carinii pneumonia, for example, can be treated with antibiotics. Interferon, a virus-fighting protein produced naturally by the body, has been used with some success against Kaposi's sarcoma. Natural and recombinant interleukin preparations are being used in an attempt to repair the immunologic deficiencies in AIDS patients.

Can AIDS be prevented?

Yes. Cases of AIDS related to medical use of blood or blood products are being prevented by use of HTLV-III antibody screening tests at blood donor sites and by members of high risk groups voluntarily not donating blood. Heat treatment of Factor VIII and other blood products helps prevent AIDS in patients with hemophilia and other clotting disorders. There is no vaccine for AIDS itself. However, there is good reason to believe that individuals can reduce their risk of contracting AIDS by following existing

recommendations. Communities can help prevent AIDS by vigorous efforts to educate and inform their populations about the illness, with special emphasis on educational activities for members of high risk groups. Meanwhile, the discovery of the AIDS virus and methods developed for producing large quantities of the virus for experimental and other purposes enables scientists to work at developing a vaccine.

The Public Health Service recommends that the following steps be taken to prevent spread of AIDS:

- Do not have sexual intercourse with AIDS patients, with members of the risk groups, or with people who are positive for the AIDS virus. If you do, use a condom and avoid sexual practices such as anal intercourse that may injure tissue.
- Do not use IV drugs. If you do, do not share needles. Don't have sex with people who use IV drugs.
- Women who are sex partners of risk group members or who use IV drugs should consider the risk to their babies *before* pregnancy. These women should have an HTLV-III antibody test before pregnancy. If they elect to become pregnant, they should have a test during pregnancy.
- Do not have sex with multiple partners, including prostitutes (who may also be IV drug abusers). The more partners you have, the greater your chances of catching AIDS.
- People at increased risk for AIDS should not donate blood, organs or sperm.

People with positive HTLV-III antibody tests should observe the following additional recommendations:

- A regular medical evaluation, followup and counseling should be sought.
- Do not donate blood, sperm or organs.
- Do not share drugs with others, and avoid exchanging body fluids during sexual activity (a condom should be used). Avoid oral-genital contact and intimate kissing.
- Do not share toothbrushes, razors or other implements that could become contaminated with blood.
- Observe the recommendations on pregnancy.

Further information about AIDS may be obtained from your local or State health department or your physician. The Public Health Service AIDS hotline number is 1-800-342-AIDS. Atlanta area callers should dial (404) 329-1295.